Table 2 DEPARTMENT-AUTHORIZED EPA-REGISTERED PROFESSIONAL-USE PESTICIDES FOR COMMON PESTS

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Except for garden pesticides Professional-use pesticides must be Department-authorized. The pesticides listed below are "pre-authorized' and are available from a variety of sources including DSCR and UNIVAR. See ordering instructions on the SHEM website. Posts must ensure that authorized pesticides are available locally or procure and stock them. Local equivalents require review by OBO/OPS/SHEM. Remember that not all uses described on the pesticide label are authorized and that the POSHO must review and approve each pesticide application in writing. Garden pesticide should be the least toxic effective option and must be applied following all prudent procedures and protective measures.

| TARGET PEST(S) | PESTICIDE | PRODUCTS* | BRIEF USE INSTRUCTIONS |
|----------------|--|--|---|
| Ants | Indoors, use bait gel. If the bait preference of the ants, protein & sweet bait can be purchased. Outdoors, apply a liquid containing directly on nests and/or around building exterior | Advion Ant Gel w/ 0.05% Indoxacarb (Syngenta) | Apply directly into cracks and crevices in dollops in aggregation areas. Do not use liquid pesticides in conjunction with bait. |
| | | Maxforce Ant Bait Station ¹ w/ fipronil (Bayer) MSDS Label | |
| | | Almost any bait gel or bait station will likely be acceptable. Submit label to SHEM for review. | |
| | | Demand CS w/ Lambda-cyhalothrin (Control Solutions) MSDS Label Termidor SC or WP (BASF) w/ fipronil MSDS Label | Follow mixing and dilution rate instructions on label. |
| Cockroaches | Indoors apply bait gel in cracks and crevices and small dollops in areas of cockroach activity. Apply directly in aggregation areas. Syringe injector may be needed. | Various including Siege PBS (pressurized bait system w/ hydramethylon (American Cyanamid) Advion Cockroach Gel (w/ 0.6% Indoxacarb (Syngenta) | Apply directly into cracks and crevices in dollops in aggregation areas. |
| | | Various including Maxforce Roach Killer Bait Gel ¹ w/ fipronil (Bayer) MSDS Label | |

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| Cockroaches and some stored product pests | Insect growth regulator prevents maturation. Often used with cockroach baits and stimulates feeding. | Gentrol Point Source –with hydroprene (Zoecon/Wellmark) MSDS Label | Press to activate. Place in areas of pest activity away from child access. Use at least 1 /75 ft ² of area. Replace every 3 months. |
|---|--|--|--|
| Fleas | Aerosol, "bomb", liquid sprays containing a pyrethrin/ pyrethroid and an insect growth regulator such as methoprene or pyriproxyfen. | Various – label should indicate that product kills emerging fleas and is effective for several months. | Follow label instructions. Note that some "bomb" type products are potentially flammable – ignition sources must be extinguished prior to treatment. |
| Indoor Crawling Insects (e.g., roaches, ants, spiders, silverfish) NOT fleas! | Liquid insecticide spray containing 0.015-0.030% lambda cyhalothrin or 0.1% cyfluthrin. Apply to exterior perimeter foundation and outdoor surfaces such as porches, patios, garages. For indoor spot | Tempo SC Ultra - 24.3% cyfluthrin, liquid concentrate (Bayer) MSDS Label | Mix in water for 0.05% finished concentration. For heavy infestations, mix 0.1% finished concentration. |
| | and crack and crevice application on rare occasions when bait gels and exterior treatment are not effective, apply where pests congregate or have been seen. Consult label on specific pests. | Demand CS with Lambda-cyhalothrin (Control Solutions) MSDS Label | Follow mixing and dilution rate instructions on label. Typical dilution is 1 tablet per gallon of water. |
| | Ready-to-use, weather/ moisture resistant bait. Can be applied to exterior perimeter areas or indoors. | Niban Fine Granular – 5% orthoboric acid (Nisus Corp) | Apply only in areas inaccessible to children & pets. Apply liberally to cracks & crevices. Avoid contamination of food. |
| Mosquitoes, outdoors | Larvicide 10% containing <i>Bacillus</i> thuringiensis berliner var israelensis (bti) added to standing water for sustained release of larvicide | Various including: Bactimos Briquets – 10% bti MSDS Label | Briquets release bti for a period of 30 days or longer. Break into bits for small containers of water such as potted plant saucers. |
| | Liquid insecticide spray containing 0.015-0.030% lambda cyhalothrin. Apply outdoors as residual spray for on surfaces where adult mosquitoes congregate and the property perimeter. | Demand CSwith Lambda-cyhalothrin (Control Solutions) MSDS Label | Follow mixing and dilution rate instructions on label. |
| Weeds, grasses and other plants | Non-selective herbicide (i.e., kills all vegetation) liquid containing glyphosate. Spray applied. | Roundup Pro - 41% glyphosate, water soluble liquid (Monsanto) MSDS Label | For both Roundup products (liquid and dry pack) mix with water in accordance with label instructions for selected vegetation to be controlled. |
| | | Roundup Dry Pack - 0.96% glyphosate (Monsanto) or generic versions | |

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| Weeds | Selective herbicide (kills certain plants such as broadleaf weeds and brush while leaving desirable grasses) containing dichloro-phenoxyacetic acid (2,4 –D) | 2,4 –D dichloro-phenoxyacetic acid emulsifiable liquid MSDS Label | Mix 2,4-D with water in accordance with label instructions for selected weeds and other vegetation to be killed. |
|----------------------------------|--|---|---|
| Rodents: rats and mice, domestic | Single dose anticoagulant bait containing - 0.005% bromadiolone or brodifacoum in small paraffin blocks. Use up baits in pellet form and use only in tamper proof bait stations (ordered separately). Note: Use of bait indoors is not recommended for controlling rats (use traps instead). | Contrac Blox - 0.005% bromadiolone. Single dose anticoagulant bait in 1 oz blocks MSDS Label Weather Blok XT - 0.005% brodifacoum. (Syngenta) | Place bait in bait station. Ensure bait station can not be moved. Rats: place bait stations at intervals of 15 to 30 feet Maintain an uninterrupted supply of fresh bait for 10 days or until signs of rat activity cease. Mice: apply ¼ to ½ ounce of bait at intervals of 8 to 12 feet per placement. Up to 2 ounces may be required for high mouse activity. Maintain uninterrupted supply of fresh bait for 15 days or until signs of mouse activity cease. |

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| Wood-Destroying Organisms – Termites (subterranean and drywood) powderpost beetles, and carpenter ants, etc. | Liquid borate products can be as a pre- treatment of indoor wood surfaces to prevent infestations. Apply to raw wood preferably prior to installation. | BORA-CARE -disodium octaborate tetrahydrate (Nisus Corp) Tim-BOR - disodium octaborate tetrahydrate (Nisus Corp) | Mix with water and apply by brush or spray injection to bare wood or to wood surfaces without a water-repellent barrier. |
|--|---|--|---|
| Termites, subterranean | Liquid termiticide containing 0.06% fipronil or 0.05% imidacloprid outdoors in the soil around the building by injection and/or trenching to create a termite resistant | Termidor 80 WG 80% fipronil (BASF) MSDS Label | Mix 1 packet per 25 gallons of water for a 0.06% finished concentration for typical situations. Apply 4 gallons per 10 linear feet of building perimeter. Follow label. |
| | barrier for several years. Powder pack concentrate may be easier to ship, but each makes a minimum batch of 25 gallons. Liquids in tip-and-measure containers can make are more practical for smaller needs. | Termidor SC 9.1% fipronil (BASF) MSDS Label | Mix 0.8 oz per gal water or 78 oz per 100 gal. Tip and measure container can mix as little as 1 gallon for spot treatments. |
| | | Premise 75 75% Imidacloprid (Bayer) | Typically, mix 1 packet per 25 gallons of water for a 0.05% finished concentration. Apply 4 gallons/10 linear feet of perimeter. |
| | | Premise SC 2 21.4% Imidacloprid MSDS Label | Mix 8-16 oz per gallon of water. |
| | Termite baiting systems are only authorized when there is a local certified contractor to confirm that the bait is effective on the type of termite and to monitor and service the stations. | Various including Sentricon w/ Recruit - 0.5% Hexaflumuron (Dow Elanco) | Available only thru DowAgro-authorized pest control professionals. Posts must contract for this service and continue monitoring for a minimum of 2 years. |
| Termites, drywood and other wood | Liquid termiticide containing 0.06% fipronil or 0.05% imidacloprid for indoor treatment | Termidor 80 WG 80% fipronil (BASF) | Mix 1 packet per 25 gallons of water for a 0.06% finished concentration. |
| infesting insects such as beetles and carpenter ants | of small areas of wood-infesting insects, e.g. drywood termites. Apply by brushing or spraying the diluted spray evenly on | MSDS Label Termidor SC 9.1% fipronil (BASF) MSDS Label | Mix 0.8 oz per gal water or 78 oz per 100 gal. Tip and measure container can be used to mix as little as 1 gallon for spot treatments. |

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| wood surfaces or preferably inje liquid into wood. Powder packs concentrate may be | 75% Imidacloprid (Bayer) | Mix 1 packet per 25 gallons of water. Apply as foam to voids & galleries & between sill plate and foundation &/or by drilling & injecting |
|---|------------------------------------|---|
| to ship, but each makes a minim of 25 gallons. Liquids in tip-and | measure 21.4% Imidacloprid (Bayer) | Mix 8-16 oz per gallon of water |
| containers can make are more practical for smaller needs that are more typical of drywood termite problems. | | Use a 0.1% dilution of Tempo 2. Mix 16 ml of Tempo 2 in 1 gal. of water. Detailed instructions are covered on the label. |